

CHANDRA-SELECTED X-RAY SOURCES IN THE KEPLER FIELD

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The Kepler mission has a finite lifetime. *If* there is no mission extension in 2012, there will be only three Guest Observer cycles before the spacecraft is switched off. We expect the Kepler archive to provide a rich heritage but the onus is upon the community to choose Kepler targets now that maximize the impact of Kepler in the future. There are many ways to attack target selection, but the one we propose here is to add new Kepler targets to the observing list that have been X-ray selected. Based upon the ROSAT all-sky survey, the Kepler field contains thousands of X-ray sources. The majority of these have an undetermined nature but experience suggests that the sample is comprised mostly of magnetically active stars, accreting stars and background quasars. All such sources would be premium targets for an instrument with Kepler's strengths - uniform cadence, long uninterrupted data sequences and high photometric precision. We propose a conservative study in cycle 2 of the best-localized, unidentified X-ray sources from the Chandra Source Catalog, with the potential goal of expanding the survey greatly in cycle 3.